

## REMARKS

In a Final Office Action dated September 3, 2008, the Examiner has maintained the previous rejections of all of the pending claims under 35 U.S.C. §103(a) as being unpatentable over the previously cited art of record.

Specifically, the Examiner has again rejected Claims 1, 10-12, 14-15, 18-20, 23-25, 29 and 30 under 35 USC § 103(a) as being unpatentable over USPN 6,356,931 issued to Ismael ("Ismael") in view of US Patent Application Publication No. 2004/0019639 issued to E ("E"). The Examiner has again rejected Claim 13 under 35 USC §103(a) as being unpatentable over Ismael in view of E, further in view of USPN 7,086,065 issued to Yeluripati ("Yeluripati"). The Examiner has again rejected Claims 3-9, 17, 22, 27 and 28 under 35 USC §103(a) as being unpatentable over Ismael in view of E, further in view of US Patent Application Publication No. 2002/0112044 issued to Hessmer ("Hessmer").

In this response, Applicant again traverses the rejections. Without admitting the propriety of the rejections, and in a continuing effort to advance the prosecution of the application as quickly as possible, Applicant has further amended independent Claims 1, 15, 20 and 25 to clarify the subject matter that Applicant regards as the invention. Support for the amendments is found throughout the specification and drawings, in particular in FIG. 12 and the accompanying description in paragraphs [0071] - [0077]. Claims 1, 3-15, 17-20, 22-25 and 27-30 remain pending.

Applicant respectfully requests reconsideration of pending Claims 1, 3-15, 17-20, 22-25, and 27-30 in view of the amendments to the claims and arguments as set forth in detail in the following remarks.

**CLAIM REJECTIONS – 35 U.S.C. § 103**

The Examiner has maintained all of the previous rejections of the claims under Section 103(a) based on the previously cited art of record, principally the references to Ismael and E. Applicant traverses the rejections.

**Claims 1, 10-12, 14-15, 18-20, 23-25, 29 and 30**

Claim 1, as currently amended, now recites:

1. A computer-implemented method employed within a network of application server instances having a cluster architecture, comprising:
  - displaying a representation of a plurality of management beans (MBeans) registered with an MBean server on a graphical user interface of a computing device, wherein each of the displayed MBeans represents a manageable resource of *an application server instance within a cluster of application server instances, each application server instance within the cluster of application server instances having*
    - a group of server nodes *configured with a redundant set of application logic and associated data, each server node within the group of server nodes having access to a central database associated with the cluster of application server instances,* and
    - a dispatcher *in communication with a central service associated with the cluster of application server instances, the central service having a locking service and a messaging service, the locking service enabling synchronization by disabling access to a portion of configuration data and program code stored within the central database, the messaging service enabling communication among the groups of server nodes within each application server instance within the cluster of application server instances using a message passing protocol;*
  - monitoring the manageable resources within the cluster, including receiving information regarding the manageable resources within the cluster from the plurality of MBeans registered with the MBean server;
  - selecting one of the plurality of MBeans displayed in the graphical user interface;
  - and
  - accessing an attribute of the selected MBean with the graphical user interface to view the received information regarding the manageable resource represented by the selected MBean.

In making the rejection under Section 103, the Examiner criticizes Applicants' specification as not providing any "limiting definition" of the terms "dispatcher," "locking service," or "messaging service." (Office Action, Page 4). Applicants disagree, and respectfully submit that the meaning of a particular claim term *may be defined by implication, that is, according to the usage of the term in the context of the specification*. See Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc) quoted in MPI:P 2111.01 (IV). Accordingly, the claim limitations, including the terms "cluster," "dispatcher," "central service," "locking service" and "messaging service," must be interpreted in light of the specification.

Moreover, contrary to the Examiner's assertion, Applicants' specification does provide ample description of the cluster architecture in Figure 12 and the accompanying paragraphs [0071]- [0077], including descriptions of the terms "cluster," "dispatcher," "central service," "locking service" and "messaging service." For example, in paragraph [0074] of Applicants' specification, the central services instance 1200 is described as enabling the communication and synchronization between each of the application server instances 1210 and 1220 as illustrated in FIG. 12. To carry out the communication and synchronization, the message service 1204 allows each of the servers within each of the application server instances to communicate with one another via a message passing protocol, while the locking service disables access to certain specified portions of the configuration data and/or program code stored within a central database.

Without admitting the propriety of the rejections, and to advance the prosecution of the application to allowance as quickly as possible, Applicants have amended Claim 1 and the other independent claims to clarify the subject matter that Applicants regard as

the invention, in particular to recite additional limitations of the “central service,” “locking service” and “messaging service” terms, as well as to recite additional limitations of the “application server instances” and the “group of server nodes,” including, among other limitations, access to a central database. All of the new limitations are supported by the description of the cluster architecture in Figure 12 and the accompanying paragraphs [0071]- [0077].

The Examiner argues that while Ismael fails to disclose the cluster of application server instances as recited in the claims, the disclosure in E does. Applicants disagree. E discloses application servers 104 that provide data and services to an enterprise server 102 for use by clients. The application servers 104A and 104B are illustrated in FIG. 1 as having a group of processes 106 and associated data 108.

The Examiner reasons that E teaches a cluster of application server instances because “E mentions [e]nterprise server 102 may be implemented or clustered across one or more of the same computer systems as application servers 104, or on one or more separate computer systems.” (Office Action Page 7, citing E at paragraph [0035], with emphasis on the term clustered added by the Examiner).

However, Applicants’ review of the E reference reveals that the term *clustered* is used only in reference to the enterprise server 102 in E, and is not used in reference to the application servers 104A and 104B. No further explanation of the term *clustered* is provided, except for the general statement that “[d]istributed sessions may be distributed among multiple servers, for example in a cluster, whereas local sessions may be bound to an individual server.” (E, Paragraph [0008]). Applicant submits that the mere *mention* of

the term *clustered* in describing the enterprise server 102 does not support the conclusion that E *teaches* the cluster of application server instances as recited in the claims.

The Examiner further reasons that the application servers 104A and 104B disclose the claimed application server instances because they (104A and 104B) have “a group of processes 106” that “can be interpreted as the claimed server nodes since they provide data and/or services for use by the clients,” (Office Action, Page 8, citing E, paragraph [0035]) Alternatively, the Examiner reasons that “it would have been at least obvious to those of ordinary skill in the art to have some of these processes as server processes,” as well as obvious to configure them with a redundant set of application logic.” (Office Action, Page 8).

However, Applicants’ review of the E reference reveals that a process 106 executes within an application server 104, may be multithreaded, and may include a virtual machine (E, Paragraphs [0036]- [0037]), all of which would indicate that, although the processes 106 in E are executing software, they are not server nodes as that term is described and claimed in the present application.

Independent claims 15, 20 and 25 recite limitations analogous to those recited in independent Claim 1. Claims 10-12, 14, 18-19, 23-24, 29 and 30 depend from claims 1, 15, 20 and 25, respectively. Thus, for at least the same reasons that Claim 1 is patentably distinguishable over Ismael and E, either alone or in combination, Applicant submits claims 10-12, 14-15, 18-20, 23-25, 29 and 30 are also patentably distinguishable over Ismael and E.

### **Claim 13**

With regard to the rejection of Claim 13 under Section 103, the Examiner acknowledges that Ismael does not disclose accessing a queue size attribute of the MBean representing the cluster manager to determine a number of requests waiting in the queue.

However, the Examiner argues that E teaches that a request for a lock may be queued by a lock mechanism, and that Yeluripati teaches a functional bean that receives client requests from a queue to service the request on a first come first served basis. Based on E and Yeluripati, the Examiner concludes that it would have been obvious to use a queue to service the requests in an MBean representing the cluster manager, and to subsequently access the queue size attribute of the MBean to determine a number of requests waiting in the queue.

Applicant disagrees, and submits that neither E nor Yeluripati cures the above-noted deficiencies with respect to the application of Ismael and E to Claims 1 and 12, from which Claim 13 depends. Accordingly, Applicant submits that Claim 13 is allowable, at least in part, because it depends from allowable independent Claim 1 and dependent Claim 12, and because of its additional limitations.

### **Claims 3-9, 17, 22, 27 and 28**

With regard to the rejection of Claims 3-9, 17, 22, 27 and 28 under Section 103, the Examiner acknowledges that neither Ismael nor E teach displaying a representation of a plurality of hierarchically organized MBeans as a tree structure having a root node, wherein the root node is an MBean representing the cluster of application server instances, nor do they teach that the tree structure further includes one or more server nodes depending from the root node and showing kernel nodes, library nodes and service

nodes depending from each of the one or more server nodes, wherein all these nodes are MBeans.

However, the Examiner argues that Hessmer discloses these elements, and that it would have been obvious to incorporate the teaching of Hessmer with that of Ismael and E to use a hierarchical tree structure for representing the MBeans. Applicants disagree, and submit that Hessmer fails to cure the above-noted deficiencies with respect to the application of Ismael and E to Claims 1, 15, 20 and 25 from which Claims 3-9, 17, 22, 27 and 28 depend. Accordingly, Applicant submits that Claims 3-9, 17, 22, 27 and 28 are allowable, at least in part, because they depend from allowable independent Claims 1, 15, 20 and 25, and because of their additional limitations.

### CONCLUSION

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, Claims 1, 3-15, 17-20, 22-25, and 27-30 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to the undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,  
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